

R¹ and R² independently are selected from methyl, ethyl, propyl, isopropyl, butyl, isobutyl, pentyl, isopentyl, hexyl, heptyl, octyl, nonyl, decyl, undecyl, dodecyl, tridecyl, tetradecyl, pentadecyl, hexadecyl, heptadecyl, octadecyl, nonadecyl, eicosyl, cyclopropyl, 2,2-dimethylcyclopropyl, cyclopentyl, cyclohexyl, methoxymethyl, methoxyethyl, methoxypropyl, methoxybutyl, methoxypentyl, methoxyhexyl, methoxyoctyl, methoxynonyl, ethoxydecyl, ethoxymethyl, ethoxyethyl, ethoxypropyl, ethoxybutyl, ethoxypentyl, ethoxyhexyl, ethoxyheptyl, ethoxyoctyl, ethoxynonyl, ethoxydecyl, propoxymethyl, propoxyethyl, propoxypropyl, propoxybutyl, propoxypentyl, propoxyheptyl, propoxyoctyl, propoxynonyl, propoxydecyl, butoxymethyl, butoxyethyl, butoxypropyl, butoxybutyl, butoxypentyl, butoxyhexyl, butoxyheptyl, butoxyoctyl, butoxynonyl, butoxydecyl, pentyloxymethyl, pentyloxyethyl, pentyloxypropyl, pentyloxybutyl, pentyloxpentyl, pentyoxyhexyl, pentyloxyoctyl, pentyloxynonyl, pentyloxydecyl, hexyloxy-methyl, hexyloxyethyl, hexyloxypropyl, hexyloxybutyl, hexyloxpentyl, hexyloxyhexyl, hexyloxyheptyl, hexyloxyoctyl, hexyloxynonyl, hexyloxydecyl, heptyloxymethyl, heptyloxyethyl, heptyloxypropyl, heptyloxybutyl, hexyloxpentyl, heptyloxyhexyl, heptyloxyheptyl, heptyloxyoctyl, heptyloxynonyl, heptyloxydecyl, octyloxymethyl, octyloxyethyl, octyloxypropyl, octyloxybutyl, octyloxpentyl, octyloxyhexyl, octyloxyheptyl, octyloxyoctyl, octyloxynonyl, decyloxy-methyl, decyloxyethyl, decyloxypropyl, decyloxybutyl, decyloxpentyl, decyloxyhexyl, decyloxyheptyl, 1-methylethyl, 1-methylpropyl, 1-methylbutyl, 1-methylpentyl, 1-methylhexyl, 1-methylheptyl, 1-methyloctyl, 1-methylnonyl, 1-methyldecyl, 2-methylpropyl, 2-methylbutyl, 2-methylpentyl, 2-methylhexyl, 2-methylheptyl, 2-methyloctyl, 2,3,3-trimethylbutyl, 3-methyl-pentyl, 2,3-dimethylpentyl, 2,4-dimethylpentyl, 2,3,3,4-tetramethylpentyl, 3-methylhexyl, and 2,5-dimethylhexyl.

7 (amended). The process of claim 1 wherein said maleated polyalkylene includes

8 (amended). The process of claim 1 wherein, prior to step a), an amine is reacted with a portion of the mer units derived from the maleic anhydride to form maleimide mer units, wherein at least one of the following optionally is true of said imidization:

it is carried out immediately preceding step a) with no physical manipulation of the polymer prior to step a), and

it and step a) are carried out in a mixer without removing the imidization product from the mixer.

11 (amended). The process of claim 1 wherein said diamine is selected from aliphatic or cycloaliphatic diamines corresponding to the general formula $R^3(NH_2)_2$ wherein R^3 represents

- a2
1) a C_2-C_{20} aliphatic hydrocarbon group,
2) a C_4-C_{20} cycloaliphatic hydrocarbon group,
3) a C_6-C_{20} aromatic hydrocarbon group, or
4) a C_4-C_{20} N-heterocyclic ring.

Kindly add the following new claims:

--14. The process of claim 13 wherein said interpolymer that reacts with said amine in step a) comprises from about 0.01-to-about 5 weight percent mer units derived from maleic anhydride.

15. The process of claim 13 wherein said vinyl aromatic-derived mer units are derived from any one or more of styrene, α -methylstyrene, p -methylstyrene, 4-phenylstyrene, m -methylstyrene, o -methylstyrene, p -tert-butylstyrene, and dimethylstyrene.

a3
16. The process of claim 13 wherein R^1 and R^2 independently are selected from methyl, ethyl, propyl, isopropyl, butyl, isobutyl, pentyl, isopentyl, hexyl, heptyl, octyl, nonyl, decyl, undecyl, dodecyl, tridecyl, tetradecyl, pentadecyl, hexadecyl, heptadecyl, octadecyl, nonadecyl, eicosyl, cyclopropyl, 2,2-dimethylcyclopropyl, cyclopentyl, cyclohexyl, methoxy-methyl, methoxyethyl, methoxypropyl, methoxybutyl, methoxypentyl, methoxyhexyl, methoxy-octyl, methoxynonyl, ethoxydecyl, ethoxymethyl, ethoxyethyl, ethoxypropyl, ethoxybutyl, ethoxypentyl, ethoxyhexyl, ethoxyheptyl, ethoxyoctyl, ethoxynonyl, ethoxydecyl, propoxy-methyl, propoxyethyl, propoxypropyl, propoxybutyl, propoxypentyl, propoxyheptyl, propoxy-octyl, propoxynonyl, propoxydecyl, butoxymethyl, butoxyethyl, butoxypropyl, butoxybutyl, butoxypentyl, butoxyhexyl, butoxyheptyl, butoxyoctyl, butoxynonyl, butoxydecyl, pentyloxy-methyl, pentyloxyethyl, pentyloxypropyl, pentyloxybutyl, pentyloxypentyl, pentyoxyhexyl, pentyloxyoctyl, pentyloxynonyl, pentyloxydecyl, hexyloxymethyl, hexyloxyethyl, hexyloxy-propyl, hexyloxybutyl, hexyloxpentyl, hexyloxyhexyl, hexyloxyheptyl, hexyloxyoctyl, hexyloxy-nonyl, hexyloxydecyl, heptyloxyethyl, heptyloxypropyl, heptyloxybutyl, heptyloxpentyl, heptyloxyhexyl, heptyloxyheptyl, heptyloxyoctyl, heptyloxynonyl, heptyloxydecyl, octyloxymethyl, oxyloxyethyl, octyloxypropyl, octyloxybutyl, octyloxypentyl, octyloxyhexyl, octyloxyheptyl, octyloxyoctyl, oxyloxynonyl, decyloxymethyl, decyloxyethyl, decyloxypropyl, decyloxybutyl, decyloxypentyl, decyloxyhexyl, decyloxyheptyl, 1-methylethyl, 1-methylpropyl,